FPL Fun Facts

• Part of the NextEra Energy family
  • NextEra Energy Resources
  • NextEra Energy Solutions
  • GEXA
  • FPL (Utility)

• 3rd largest investor-owned utility
  • Lowest Electric Rates in the State

• Providing Performance Contracting for over 25 years
  • Executed the first BOA for energy efficiency in 1994
  • Completed 60 individual UESC projects
  • Worked with 10 different Agencies/Services
Best Practices for ECM Selection
Utility Energy Services Contract

Limited Source Contract with the serving utility based on demonstrating the performance of the installed equipment and systems.

Can be included under the Presidential Performance Contracting Challenge (PPCC).

Federal Utility Partnership Working Group
May 18-19, 2016  Cincinnati, OH
Typical UESC Development Process

1. Preliminary Assessment
2. Feasibility Study
3. Investment Grade Audit

The ultimate selection of ECMs and success of a UESC project depends on what you do here!
Qualities of a Successful UESC

• Meets all legal and program requirements
  – ECMs save energy/water/cost
  – Dollar savings exceed finance payments
  – Appropriate level of Performance Assurance

• Comprehensive in ECMs

• Solves facility O&M Issues

• IS SELLABLE!!!!!!

• PERFORMS!!!!!!
Before You Start

• Understand roles and responsibilities of the “Team” Secure team commitment
• Locate decision makers. Get them on board
• Agree on a reasonable timeline
• Continuous, clear, recorded communication
• Understand processes and expectations
Example of Process Expectations

60% Design Report:
- Report content and organization based on ESPC Contract Section H.5
  - Output to include revised ECM list with revised cost and savings based on the review of the 30% and additional investigation, analysis and data collection
    - Finalized Scope of Work for each ECM
    - Proposed construction schedule
    - M&V plan
    - Finalized data gathering from metering and loggers.
    - Finalized bid and design documents
    - Finalized baselines
- Pricing based on finalized scope by FPL estimator and discussions with vendors/potential subs
- Savings based on revised ECM scope, finalized data/metering information, and engineering calculations/assumptions.
Preliminary Assessment

• Provide a *comprehensive* menu of potential ECMs with preliminary savings analysis and pricing.

• Allows the Customer to pick and choose the appropriate ECMs to further develop in later project stages.
Where to Start?

• Understand current usage patterns

Miami VAMC - EUI (MBTU/sq ft/yr)

AVG Load Factor = 36%

AIRSTA Percent Water Usage

Toilets  Urinals  Sink & Faucets  Showers  Misc Items  Kitchen  Other
Where to Start?

- Facility’s 5 year capital improvement plan
- Recent energy audits and RCx reports

**TALK TO EVERYONE!**
Facility Engineers
Maintenance Personnel
Food Service
Housekeeping
Occupants/Users/Stakeholders
Management
Keys to PA Development

- Comprehensive and complete
- Solves on-going O&M problems
- Takes advantage of bundling
- Includes leading edge technologies

- Include solutions for as many people, functions, departments....as possible.
Keys to PA Development

It's not just about energy/water savings!

• It's about the Mission
• It's about the Pain
  » Maintenance
  » Operations
  » Housekeeping
  » Staffing
  » Budgets
Make Your Project Comprehensive

ECM Technical Categories

<table>
<thead>
<tr>
<th>Technical Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>TC-1</td>
<td>Boiler Plant Improvements</td>
</tr>
<tr>
<td>TC-2</td>
<td>Chiller Plant Improvements</td>
</tr>
<tr>
<td>TC-3</td>
<td>Building Automation Systems</td>
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<tr>
<td>TC-4</td>
<td>Heating, Ventilation, and Air Conditioning</td>
</tr>
<tr>
<td>TC-5</td>
<td>Lighting Improvements</td>
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<tr>
<td>TC-6</td>
<td>Building Envelope</td>
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<tr>
<td>TC-7</td>
<td>Chiller Water, Hot Water and Steam Distribution Systems</td>
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<tr>
<td>TC-8</td>
<td>Electric Motors and Drives</td>
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<tr>
<td>TC-9</td>
<td>Refrigeration</td>
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<td>TC-10</td>
<td>Distributed Generation</td>
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<tr>
<td>TC-11</td>
<td>Renewable Energy Systems</td>
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<tr>
<td>TC-12</td>
<td>Energy/Utility Distribution Systems</td>
</tr>
<tr>
<td>TC-13</td>
<td>Water and Sewer Conservation</td>
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<tr>
<td>TC-14</td>
<td>Electrical Peak Shaving/Load Shifting</td>
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<tr>
<td>TC-15</td>
<td>Cost Reduction Through Rate Adjustment</td>
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<tr>
<td>TC-16</td>
<td>Energy Related Process Improvements</td>
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<td>TC-17</td>
<td>Commissioning</td>
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<tr>
<td>TC-18</td>
<td>Advanced Metering Systems</td>
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<tr>
<td>TC-19</td>
<td>Appliance/Plug Load Reductions</td>
</tr>
<tr>
<td>TC-20</td>
<td>Future</td>
</tr>
</tbody>
</table>
Preliminary Assessment
Pieces/Parts

• Complete, well organized document
• Provide honest defendable costs and savings
  – Properly competed subcontractors
  –ESCO Costs (Development, PM, CM...) within range/average
  – Rates (off-on peak $/kWh) (kWh vs. kWd)
• Focused on the benefits to the customer rather than the savings.
Post Preliminary Assessment

• Negotiate concise list of Valued ECMs
  – Discussions with multiple stakeholders
  – Buy-in from upper management

• Negotiate appropriate level of Post Acceptance Activities
  – Commissioning/Training
  – Performance Assurance
  – O&M (self performed or annual service plans)
ECM Selection

• Customer/site driven (Agency supported)
  – Solve O&M problems
  – Solve mission related issues
  – Relieve budgetary constraints
    • Consider Annual Service Contracts
    • Long life equipment
    • Mass replacements

• Reduces energy/water costs
ECM Selection (tips)

• Take full advantage of smart metering and building automation systems
  – Include automated “continuous monitoring”
    • Event/failure notification
    • Preventative maintenance
    • Performance Assurance

• Bundle bundle bundle.

Sustainable Energy Savings
Key Highlights

• Understand with whom and what you are doing before you do it.
• Look for solutions to facility O&M problems
• Spread the benefits
  – Cultivate and expand project advocates
  – Foster their assistance in the solution
• Stress the benefits to the user/mission rather than the savings